

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Please amend claims 1, 5, 10, and 14 and add a new claim 18 as follows:

1. (currently amended): A blind, adaptive equalizer comprising:
a coefficient generator for adjusting a tap coefficient; and
a tracking generator, wherein the tracking generator comprises,
a smoothing filter for receiving a tap coefficient error estimate associated with a data sample of an input data stream and for generating a smoothed error from the tap coefficient error estimate; and
a tracking unit for generating a fractional error from the smoothed error,
the coefficient generator adjusting the tap coefficient based on the fractional error.
2. (original): The equalizer as in claim 1 wherein the tracking generator further generates a reduced error by subtracting the fractional error from a stored smoothed error.
3. (original): The equalizer as in claim 2 wherein the tracking generator further generates a fraction of the reduced error.
4. (original): The equalizer as in claim 1 wherein the tracking generator further generates the smoothed error from the tap coefficient error estimate and a smoothing factor.
5. (currently amended): The equalizer as in claim 1 ~~further comprising~~ wherein during a start up period, the coefficient generator receives existing tap coefficients and fractional

errors associated with the data samples of the input data stream and for generating adjusts the existing tap coefficients based on the fractional error errors.

6. (original): The equalizer as in claim 1 further comprising an output unit for generating a converged output signal.

7. (original): The equalizer as in claim 1 wherein the tracking generator further generates the fractional error based on the smoothed error and a coefficient adjustment factor.

8. (original): The equalizer as in claim 7 wherein the adjustment factor is $1/256$.

9. (original): The equalizer as in claim 1 wherein the tracking generator comprises a programmed medium.

10. (currently amended): A method for shortening the convergence time of blind adaptive equalizers comprising:

receiving a tap coefficient error estimate of an input data stream;

generating a smoothed error from the estimate; ~~and~~

generating a fractional error from the smoothed error; and

adjusting a tap coefficient in a coefficient generator according to the fractional error.

11. (original): The method as in claim 10 further comprising generating a reduced error by subtracting the fractional error from a stored, smoothed error.

12. (original): The method as in claim 11 further comprising generating a fraction of the reduced error.

13. (original): The method as in claim 10 further comprising generating the smoothed error from the tap coefficient error estimate and a smoothing factor.

14. (currently amended): The method as in claim 10 further comprising:

receiving initial tap coefficient values and fractional errors associated with the data samples of the input data stream; and

generating adjusting the initial tap coefficients based on the fractional ~~error~~ errors.

15. (original): The method as in claim 10 further comprising generating a converged output signal.

16. (original): The method as in claim 10 further comprising generating the fractional error based on the smoothed error and a coefficient adjustment factor.

17. (original): The method as in claim 16 wherein the adjustment factor is $1/256$.

18. (new): The equalizer as in claim 1 wherein the tap coefficient error estimate is generated by multiplying an adjusted equalizer error with a data sample.